

REMARKS

This reply is in response to the Office Action mailed on October 19, 2006 in which claim 26 remains withdrawn; in which Claims 16-24 were allowed; in which Claims 7 and 8 were objected to and in which Claims to 1-3, 5, 6, 9-14 and 25 were rejected. With this response, claims 26 is canceled; claim 16 is amended and claims 30-37 are added. Claims 1-3, 5-14 and 16-37 are presented for reconsideration and allowance.

I. Rejection of Claims 1, 5, 10, 12-14 and 25 under 35 USC 102(b)

Based upon Nakamura or under 35 USC 103(a) Based upon Nakamura and Miyauchi.

Section 2 of the Office Action rejected claims 1, 5, 10, 12-14 and 25 under 35 USC 102(b) as being anticipated by Nakamura et al. US Patent 5,419,543 or, in the alternative, under 35 USC 103(a) as being obvious over Nakamura in view of Miyauchi et al. US Patent 5,742,318. For the reasons which follow, Applicants respectfully request that the rejection be withdrawn.

A. Claim 1

Claim 1 recites a sheet transfer apparatus which includes a first roller configured to be rotatably driven at a first surface speed a second roller configured to be driven at a second surface speed greater than the first surface speed and a power train rotatably driving the first roller. The power train includes a first gear coupled to the first roller, a second gear and a third gear movable between the first position in which the third gear is in power-transmitting engagement with the first gear and a second position in which the third gear is out of engagement with the second gear

Neither Nakamura nor Miyauchi, alone or in combination, disclose a first gear coupled to a first roller, a second-gear and a third gear movable between (1) a first position in which the third gear is in power-transmitting engagement with the first

gear and the second gear and (2) a second position in which the gear is out of engagement with the second gear.

The Office Action characterizes planet gear 64 of Nakamura as the "third gear". The Office Action characterizes gear 55 as a second gear. The Office Action further attempts to characterize the gear between gears 55 and the gear of roller 5 as the "second gear" of claim 1.

However, this is an improper characterization of such gears of Nakamura so as to read upon claim 1. The gear between element 55 and 5 of Nakamura cannot be characterized as a first gear since gear 64 (characterized as the "third-gear") is never in engagement with both this gear and gear 55 as set forth in a claim limitation "a third gear movable between a first position in which a third gear is in power-transmitting engagement with the first gear and the second gear. One of ordinary skill in the art would clearly understand that when two gears are described as being engaged, they are in interlocking or inter-meshing contact with one another. Gear 64 is never in interlocking or inter-meshing contact with the unnumbered gear between elements 5 and 55 of Nakamura.

Although gear 54 does appear to be in concurrent engagement with both gears 55 and 62 in Figure 1 of Nakamura, gear 64 is never out of engagement with gear 62. Although gear 54 is moved out of engagement with gear 55, potentially permitting gear 55 to be characterized as the "second-gear", gear 62 cannot be characterized as the corresponding "first gear" since gear 62 is not coupled to roller 21. Miyauchi does not satisfy these deficiencies of Nakamura. Accordingly, the rejection of claim 1 based upon Nakamura alone or based upon Nakamura in combination with Miyauchi should be withdrawn. The rejection of claims 5, 10 and 12-14 which depend from claim 1 should also be withdrawn.

B. Claim 25

Claim 25, as amended, recites a sheet transfer apparatus which includes a first roller driven at a first surface speed, a second roller driven at second surface

speed, a drive gear operably coupled to the first roller and means for assassinating transmission of power to the drive gear and creating a dwell after the first roller and the second roller have initially and simultaneously engaged a media sheet. Support for the amendment to claim 25 may be found in the Paragraph [0028] and Figures 4 and 4a of the present application which describe the creation of a dwell. Thus, no new matter is believed to be added.

Neither Nakamura nor Miyauchi, alone or in combination, disclose or suggest an apparatus having means process saying transmission of power to a drive gear and creating a dwell after a first roller and a second roller have initially and simultaneously engaged a media sheet. In rejecting claim 2 which alter recites the creation of a dwell when the first roller and the second roller simultaneously engaged the media sheet, the Office Action attempted to additionally rely upon Nose et al. US Patent 6,168,147 by referring to element 10 of Nose. However, element 10 would not create a dwell. Element 10 appears to simply be a friction clutch. As one of ordinary skill in the art knows, a friction clutch does not create a dwell. Accordingly, claim 25, as amended, overcome the rejection.

II. Rejection of Claim 25 under 35 USC 102(b) Based upon Nose or under 35 USC 103(a) Based upon Nose and Miyauchi

Section 3 of the Office Action rejected claim 25 under 35 USC 102(b) as being anticipated by Nose US Patent 6,168,147 or under 35 USC 103(a) as being obvious over Nose US Patent 6,168,147 in view of Miyauchi US Patent 5,742,318. Claim 25, as amended, overcome the rejection.

Claim 25, as amended, recites a sheet transfer apparatus which includes a first roller driven at a first surface speed, a second roller driven at second surface speed, a drive gear operably coupled to the first roller and means for assassinating transmission of power to the drive gear and creating a dwell after the first roller and the second roller have initially and simultaneously engaged a media sheet. Support for the amendment to claim 25 may be found in the Paragraph [0028] and Figures 4

and 4a of the present application which describe the creation of a dwell. Thus, no new matter is believed to be added.

Neither Nose nor Miyauchi, alone or in combination, disclose or suggest an apparatus having means process saying transmission of power to a drive gear and creating a dwell after a first roller and a second roller have initially and simultaneously engaged a media sheet. In rejecting claim 2 which also recites the creation of a dwell when the first roller and the second roller simultaneously engage the media sheet, the Office Action attempted to additionally rely upon Nose et al. US Patent 6,168,147 by referring to element 10 of Nose. However, element 10 would not create a dwell. Element 10 appears to simply be a friction clutch. As one of ordinary skill in the art knows, a friction clutch does not create a dwell. Accordingly, claim 26, as amended, overcome the rejection.

III. Rejection of Claims 2-3, 6 and 9 under 35 USC 103(a) Based upon Nakamura, Miyauchi and Nose

Section 4 of the Office Action rejected claims 2-3, 6 and 9 under 35 USC 103(a) as being unpatentable over Nakamura et al. US Patent 5,419,543 by itself or, in the alternative, under 35 USC 103(a) as being obvious over Nakamura in view of Miyauchi et al. US Patent 5,742,318 and further in view of Nose et al. US Patent 6,168,147. For the reasons which follow, Applicants respectfully request that the rejection be withdrawn.

A. Alternative Rejections under 35 USC 103(a) Based upon Nakamura Alone

Section 4 rejects each of claims 2-3, 6 and 9 under 35 USC 103(a) as being compatible over Nakamura by itself. Applicants respectfully request that this part of the rejection be withdrawn since the Office Action has failed to establish a prima facie case of obviousness based upon Nakamura by itself. In rejecting such claims, the Office Action acknowledges the Nakamura does not disclose the additional limitations of claims 2-3, 6 and 9. However, the Office Action fails to provide any

source or motivation supporting a modification of Nakamura based upon general knowledge known to those of ordinary skill in the art. Accordingly, the rejection based upon Nakamura alone should be withdrawn.

B Claim 2

Claim 2 depend from claim 1 and overcome the rejection for the same reasons discussed above with respect to the rejection of claim 1. Nose fails to satisfy the deficiencies of neither Nakamura nor Miyauchi.

Claim 2 recites that the first gear and the first roller are configured such that a dwell between the first gear and the first roller is created upon the first roller and the second roller simultaneously engaging the media sheet.

Neither Nakamura, Miyauchi nor Nose, alone or in combination, disclose an apparatus wherein a dwell is created upon the first roller and the second roller simultaneously engaging the media sheet. The Office Action acknowledges that Nakamura does not disclose the creation of a dwell. As a result, the Office Action attempts to additionally rely upon Nose and refers to element 10. However, as noted above, element 10 would not create a dwell. Element 10 appears to simply be a friction clutch. As one of ordinary skill in the art knows, a friction clutch does not create a dwell.

Moreover, it would not be obvious to modify Nakamura to include a dwell. During a dwell, no force or power would be transmitted between the first gear and the first roller. In Nakamura, since roller 5 is rotated as a result of the rotation of roller 21, such a modification would result in the cessation power transmission to roller 5 upon the first roller and the second roller simultaneously engaging the media sheet. In other words, roller five would no longer be rotated. This modification would appear to prevent Nakamura from even working. As noted in MPEP 2143.01, THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE and THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A

REFERENCE. In the present case, the alleged modification to Nakamura would appear to render Nakamura unsatisfactory for its intended purpose. Accordingly, the rejection of claim 2 should be withdrawn. Claim 3 depends from claim 2 and overcomes the rejection for the same reasons.

C. Claim 9

Claim 9 depends from claim 1 and overcomes the rejection for the same reasons discussed above with respect to claim 1. Nose does not satisfy the deficiencies of Nakamura or Miyauchi.

Claim 9 for the recites a drag spring coupled between the first roller and the first gear.

Neither Nakamura, Miyauchi nor Nose, alone or in combination, disclose or suggest the apparatus of claim 1 further including a drag spring coupled between the first roller and the first gear. The Office Action acknowledges that neither Nakamura nor Miyauchi disclose such a drag spring. As a result, the Office Action attempts to additionally rely upon Nose. In particular, the Office Action asserts:

Regarding claim 9, providing the clutch arrangement of the Nose patent on the first roller (21) of Nakamura et al. will result in a drag spring (39) being coupled between the first roller (21) and the first gear (unnumbered gear between elements 55 and 5) of Nakamura et al. See e.g., Fig. 6 of the Nose patent.

(Office Action, pg. 10).

However, the Office Action has failed to establish a prima facie case of obviousness. The Office Action is failed point to any motivation or source which would lead to some one of ordinary skill in the art to modify Nakamura to include the drag spring of Nose, let alone the entire clutch arrangement of Nose. As noted in MPEP 2143.01, the FACT THAT REFERENCES CAN BE COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH PRIMA FACIE OBVIOUSNESS. Accordingly, rejection of claim 9 is improper and should be withdrawn.

IV. Rejection of Claim 11 under 35 USC 103(a) Based upon Nakamura Alone or Based upon Nakamura and US Patent Publication 2002/0179222

Section 5 of the Office Action rejected claim 11 under 35 USC 103(a) as being obvious over Nakamura et al. US Patent 5,419,543 alone or as being obvious over Nakamura and US Patent Publication 2002/0179222. Claim 11 depends from claim 1 and overcomes rejection for the same reasons discussed above with respect to claim 1. US Patent Publication 2002/0179222 fails to satisfy the deficiencies of Nakamura.

V. Added Claims

With this response, claims 30-37 are added. Claim 30-37 are believed to be patentably distinct over the prior art of record.

A. Claim 30

Claim 30 corresponds reprieves a canceled claim 4. Claim 30 depends from claim 3 and further recites that the first gear moves the third gear to the second position upon a maximum dwell being attained.

The prior art of record fails to disclose such an apparatus. In Nakamura, neither gear 55 nor the unnumbered idler gear between elements 5 and 55 move gear 64 to the second position upon a maximum dwell being attained.

In the previous office action, claim 4 was rejected under 35 USC 112, second paragraph. The Office Action asserted that it is unclear what was meant by the recited "upon a maximum dwell being attained". Applicants respectfully refer the Examiner's attention to Paragraph [0028] and Figures 4 and 4a. Accordingly, Applicants respectfully submit that added claim 30 is not indefinite under 35 USC 112, second paragraph. Thus, claim 30 is presented for consideration and allowance.

B. Claim 31

Claim 31 corresponds to former claim 15. Claim 31 recites that the apparatus includes a frame having a slot and wherein the third gear who's along a slot between the first position and the second position.

The prior art of record fails to disclose such an apparatus. Nakamura does not disclose a gear which moves along a slot between the recited first position and the recited second position.

In the previous office action, claim 15 was rejected under 35 USC 112, second paragraph. In particular, the previous Office Action asserted that claim 15 was incomplete for omitting essential structural cooperatives relationships of elements. Applicants respectfully note that the breadth of a claim does not result in the claim being indefinite. Claim 31 appropriately recites a frame having a slot and that the gear moves along the slot between the positions. Accordingly, Applicants respectfully submit that added claim 31 is not indefinite under 35 USC 112, second paragraph. Thus, claim 31 is presented for consideration and allowance.

C. Claim 32

Claim 32 depends from claim 1 and further clarifies that the third gear has teeth inter-meshed with teeth of the first gear and the second gear r in the first position. Since the prior art of record fails to disclose such an apparatus, claim 32 is presented for consideration allowance.

D. Claims 33 and 37

Claims 33 and 37 depend from claims 1 and 25, respectively, and further recite that the sheet transfer apparatus is configured for use with the document processing apparatus and wherein the first roller and the second roller are configured to engage to media sheet prior to the media sheet being interacted upon by the document processing module. Support for added claims 33 and 37 may be found in at least Paragraph [0001] and [0020]. Thus, no new matter is believed to be added.

The prior art of record fails to disclose such a sheet transfer apparatus. For example, rollers 5 and 21 of Nakamura are clearly on opposite sides of print head 3. Rollers 5 and 21 do not engage the media sheet prior to the media sheet being interact upon by a document processing module, print head 3. Thus, claim 33 and 37 are presented for consideration and allowance.

E. Claim 34

Claim 34 depends from claim 1 and recites that the power train is configured remained operably coupled to the second roller to rotatably drive the second roller when the third gear is in the second position. Support for added claim 34 may be found in at least Paragraph [0028]. Thus, no new matter is believed to be added.

The prior art of record fails to disclose the apparatus of claim 34. Clearly, when gear 64 of Nakamura is disengaged from gear 55, roller 5 is no longer rotatably driven. Thus, claim 34 is presented for consideration and allowance.

F. Claim 35

Claim 35 depends from claim 1 further recites at the power train is configured such that simultaneous engagement of the media sheet by the first roller and the second or roller drives the third gear to the second position.

The prior art record fail to disclose the apparatus of claim 35. For example, in contrast, gear 64 is only moved to the second position as a result of the motor reversing direction. Simultaneous engagement of a media sheet by the first roller and the second roller does not drive gear 64 to the recited second position. Thus, claim 35 is presented for consideration and allowance.

G. Claim 36

Claim 36 depends from claim 25 and further recites means for consuming the dwell upon initial disengagement of the media sheet from the first roller.

As noted above with respect to claim 25, Nakamura fails to disclose the creation of dwell. Thus, Nakamura also does not disclose consumption of the dwell. Even assuming, arguendo, that a friction clutch could somehow be properly characterized as a mechanism that could create a dwell, such a clutch cannot consume dwell. Thus, claim 36 is presented for consideration and allowance.

VI. Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 08-2025.

Respectfully submitted,

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